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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/006,384 | 12/10/2001 | Akio Oobayashi | 109809 | 8263 |
| 25944 | 7590 | 01/21/2004 | EXAMINER | |
| OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320 | | | KNABLE, GEOFFREY L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1733 | |

DATE MAILED: 01/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-9

| | | | |
|------------------------------|---------------------------------------|---|--|
| Office Action Summary | Application No. 10/006,384 | Applicant(s) OOBAYASHI ET AL. | |
| | Examiner Geoffrey L. Knable | Art Unit 1733 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8</u> | 6) <input type="checkbox"/> Other: _____ |

1. Claims 2 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 refers to inflating with a "high-temperature fluid" while claim 4 refer to supplying a "low-temperature fluid". It however is not entirely clear what the scope of these requirements are (i.e. high/low relative to what?) and as such, it is not considered that the scope of protection of these claims can be readily ascertained. In particular, it is not clear whether, for example room temperature, i.e. unheated or uncooled air, reads on these requirements, it being noted that such air could still be described as either high or low temperature relative to some other temperatures. It seems that it may be the intent to define that these fluids are heated/cooled, respectively, and inclusion of such additional requirements would help provide more definite limits on the scope and thereby avoid this rejection.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1733

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 2 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Mitamura (US 6,620,367).

Mitamura discloses a method and apparatus for producing a tire including supporting a green tire using a pair of holders that support a bladder (20), the holders being joined and the bladder being inflated (with heated/"high temperature" fluid as required by claim 2) within the tire (e.g. note bladder mechanism "2" in pre-processing unit "3" in fig. 4). This tire/holders/bladder mechanism assembly is then transferred into a vulcanizing press "4" (e.g. note figs. 1 and 6) where heat medium is supplied and the tire vulcanized. This thus is considered to suggest a method and apparatus that satisfies the requirements of claims 1, 2 and 5.

6. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 578,106 to Bridgestone or Yabe (US 3,909,337) or Weigold et al. (US 2,824,336) or Bottasso et al. (US 3,922,122).

EP '106 to Bridgestone discloses a method and apparatus for producing a tire including supporting a green tire with a pair of holders (20) that support a bladder (21) and are joined (e.g. fig. 3), it being apparent that the bladder is inflated at this stage in light of the fact that (1) it is depicted as against the tire and (2) it is described as being "formed" together with the carcass at second station "36" against the tread (col. 3, lines 42+). Further, even if it were not considered that this is describing that the bladder is inflated, it would have been obvious to provide it as such to ensure that the tire is appropriately formed against the tread and contacts the mold. This assembly of the tire/bladder/holders is then transferred to a vulcanizer "16" (note fig. 4) where hot fluid is used for vulcanization. This thus is considered to suggest/render obvious a method/apparatus as required by claims 1 and 5.

Yabe discloses a method and apparatus for producing a tire including supporting a green tire with a pair of holders that support a bladder (63) and are joined and inflated (e.g. fig. 13). This assembly of the tire/bladder/holders is then transferred to a vulcanizer – note col. 6, lines 17-21. Although it is not described in detail, it is considered to have been implicit or in any event certainly obvious that this vulcanizing would or should be accomplished using heated fluid in the bladder, such being of course well known and typical. This thus is considered to suggest/render obvious a method/apparatus as required by claims 1 and 5.

Weigold et al. discloses a method and apparatus for producing a tire including supporting a green tire with a pair of holders that support a bladder (14) and are joined and inflated (e.g. fig. 4). This assembly of the tire/bladder/holders is then transferred to a vulcanizer – note col. 4, lines 64+. Although compressed air, steam and hot water are mentioned (col. 3, lines 65+), it is not described in detail whether or which are used for which inflation process. It is considered however to have been implicit or in any event certainly obvious that this vulcanizing would or should be accomplished using one of the heated fluids in the bladder, such being of course well known and typical. This thus is considered to suggest/render obvious a method/apparatus as required by claims 1 and 5.

Bottasso et al. discloses a method and apparatus for producing a tire including supporting a green tire with a pair of holders that support a bladder (note 49/51 in fig. 2) and are joined, it further being apparent that the bladder is inflated at this stage in light of the fact that (1) it is depicted as against the tire and (2) it is described as having beads locked thereon (col. 4, lines 9-16). Further, even if it were not considered that this is suggesting that the bladder is inflated, it would have been obvious to provide it is such to ensure that the tire beads are appropriately locked in place. This assembly of the tire/bladder/holders 47/49/51 is then transferred to a vulcanizer where hot fluid is used for vulcanization (e.g. col. 6, lines 23-26). This thus is considered to suggest/render obvious a method/apparatus as required by claims 1 and 5.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 578,106 to Bridgestone or Yabe (US 3,909,337) or Weigold et al. (US 2,824,336) or

Bottasso et al. (US 3,922,122) as applied to claim 1 above, and further in view of Mitamura (US 6,620,367).

Each of the primary references, as already noted, is considered to suggest preliminary inflation of a supporting bladder prior to introduction into the vulcanizer but do not clearly suggest use of a high-temperature fluid, this being read as requiring a heated fluid (although as already noted, even room temperature air could be termed high-temperature relative to some lower temperatures). Mitamura is similarly directed to inflating a supporting bladder for a tire prior to introduction into a vulcanizer and in particular suggests using a heated fluid to preheat the tire and thereby reduce the time in the vulcanizing press (e.g. col. 1, line 60 – col. 2, line 2). To provide the preliminary inflation air as a heated fluid to preheat the tire would therefore have been obvious to reduce vulcanization time.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 578,106 to Bridgestone as applied to claim 1 above, and further in view of Ulm (US 3,621,520) and/or Soderquist (US 2,963,737).


As to claim 3, EP '106 discloses that the tire/bladder assembly is transferred to a post inflation station (col. 3, lines 55+) but details of the post inflation process are not given and thus there is no disclosure of rotating the tire at this station. It however is known and conventional in this art to enhance uniformity during post inflation by rotating the tire during this process – Ulm (note esp. col. 1, lines 61-66) and Soderquist (note esp. col. 1, lines 57-65) are exemplary. To rotate the tire assembly during post inflation cooling would therefore have been obvious to enhance uniformity.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 578,106 to Bridgestone as applied to claim 1 above, and further in view of Ulm (US 3,621,520) and/or Soderquist (US 2,963,737) as applied to claim 3 above, and further in view of EP 468,343 to Bridgestone.

As to claim 4, as noted in the 112 rejection, it would seem that the standard inflation air (e.g. air at about room temperature) applied during the typical post inflation would read on or satisfy the claimed requirement for supplying a "low temperature fluid". In any event, to the extent this requires that the air be actively cooled, EP '343 evidences that in this art, it is known to cool the inflating air within the tire during post-cure inflation to provide faster cooling. To cool the air during any post inflation process would therefore have been obvious.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.


Geoffrey L. Knable
Primary Examiner
Art Unit 1733

G. Knable
January 9, 2004